Describe results of any bench calibrations

not relevant

4.6 Were different sized models used in wind-tunnel investigation ? If so, indicate sizes

4.7 Areas and lengths used to form coefficients

 $S = 0.7532 \text{ m}^2$ c = 0.64607 m

4.8 References on tests

ref. 4,

4.9 Related reports

ref. 6.

Instrumentation

5.1 Surface pressure measurements

Pressure orifices in wing. Location and number on upper and lower surfaces

271 pressure orifices divided in 7 sections (y/b = 0.20/0.44/0.65/0.80/0.90/0.96 and 0.99) see also figure B1-1 and table B1-2

Pressure orifices on fuselage.

Location and number

not relevant not relevant

Pressure orifices on components, give components and orifice location

5.1.4 Geometry of orifices

Ø 0.8 mm

Type of pressure transducer and scanning devices used. Indicate range and accuracy

6 transducers CEC 4312 $(\pm 12.5 \text{ PSID} - \text{Accuracy} : \pm 0.012 \text{ PSI})$ 6 scanivalves (type D)

5.2 Force measurements

5.2.1 Type and location of balance

wall dynamometric 5 components balance " 120 mm"

5.2.2 Forces and moments that can be measured. Maximum loads and accuracy

axial force : $12000 \pm 12 \text{ N}$ normal_force : $65000 \pm 65 \text{ N}$ rolling moment : $8000 \pm 8 \text{ mN}$ pitching moment: 2500 ± 2.5 mN yawing moment: 1400 ± 1.4 mN not relevant

Forces and moments on components

none

measurements 5.4 Surface flow visualization

5.3 Boundary layer and flow-field

Indicate method used to determine

by means of fluid paints

- boundary-layer transition

streamline pattern

by sublimation

5.4.2 Accuracy of method

qualitative methods

5.5 Skin friction measurements

none

5.6 Simulation of exhaust jet

not relevant

5.7 Additional remarks

there is strain gauge, kulite and accelerometer instrumentation for buffeting analysis

6. Data

- 6.1 Accuracy
 - 6.1.1 Pressure coefficients

at Mo = 0.84 : \triangle Cp = $\frac{+}{-}$ 0.02

6.1.2 Aerodynamic coefficients

at Mo = 0.84 : $\triangle C_X = \frac{1}{2} 0.002$, $\triangle C_1 = \frac{1}{2} 0.002$ $\triangle C_2 = \frac{1}{2} 0.009$ $\triangle C_m = \frac{1}{2} 0.000$ $\Delta C_{\rm m} = \pm 0.0006$ $\Delta C_{\rm n} = \pm 0.0003$